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(Translation)
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ABSTRACT

Object

In a method for fabricating a nitride-based semiconductor laser which forms, by a selective deposition, a current narrowing structure and a structure confining a light in a horizontal direction in parallel to a substrate, when the nitride-based semiconductor is selectively deposited by a metal organic chemical vapor deposition, silicon generated by decomposition of the silicon oxide film used as the mask for the selective deposition is prevented from being deposited on a re-growth boundary.

Construction

A silicon nitride film is used as the mask for the selective deposition, and when the nitride-based semiconductor is selectively deposited by the metal organic chemical vapor deposition, a V-group material of the nitride-based semiconductor, namely, a nitrogen material, for example, ammonia, is supplied so that the decomposition of the silicon nitride film used as the mask for the selective deposition, is prevented.

Selected Figure

Fig. 3